

**Supplementary Table S7.** Multivariate and sex-adjusted (as confounder) Cox regression analysis by genotype for CRC. Note: Significant polymorphism genotypes are in Bold. Abbreviations: HR. Hazards Ratio, CI. Confidence Interval, Ref. Reference genotype.

| Polymorphism          | Genotype (N) | Cancer events (N) | HR (95% CI)      | P-value      | #P-value | *Adjusted HR (95% CI) | P-value      | #P-value |
|-----------------------|--------------|-------------------|------------------|--------------|----------|-----------------------|--------------|----------|
| <b>HFE H63D</b>       |              |                   |                  |              |          |                       |              |          |
| rs1799945             |              |                   |                  |              |          |                       |              |          |
| CC                    | 249          | 134               | Ref              |              |          | Ref                   |              |          |
| CG                    | 50           | 26                | 0.84 (0.47-1.49) | 0.550        | 0.699    | 0.86 (0.48-1.54)      | 0.620        | 0.863    |
| CT                    | 2            | 1                 | 1.15 (0.14-9.46) | 0.900        | 0.926    | 0.82 (0.10-6.68)      | 0.850        | 0.968    |
| GG                    | 2            | 1                 | 0.32 (0.04-2.50) | 0.280        | 0.613    | 0.22 (0.03-1.82)      | 0.160        | 0.434    |
| <b>CYP17 rs743572</b> |              |                   |                  |              |          |                       |              |          |
| AA                    | 68           | 35                | Ref              |              |          | Ref                   |              |          |
| AG                    | 156          | 81                | 1.74 (0.99-3.03) | 0.052        | 0.370    | 1.84 (1.05-3.22)      | <b>0.034</b> | 0.234    |
| GG                    | 60           | 24                | 1.21 (0.60-2.44) | 0.590        | 0.699    | 1.24 (0.61-2.51)      | 0.250        | 0.802    |
| GT                    | 23           | 13                | 1.56 (0.63-3.86) | 0.340        | 0.671    | 1.75 (0.70-4.42)      | 0.230        | 0.546    |
| AT                    | 32           | 10                | 0.57 (0.22-1.49) | 0.250        | 0.607    | 0.57 (0.22-1.49)      | 0.250        | 0.546    |
| TT                    | 1            | 0                 | 0.000 (0.00-inf) | 1.000        | 0.999    | 0.000 (0.00-inf)      | 1.000        | 0.999    |
| <b>hTERT</b>          |              |                   |                  |              |          |                       |              |          |
| rs2075786             |              |                   |                  |              |          |                       |              |          |
| AA                    | 98           | 48                | Ref              |              |          | Ref                   |              |          |
| AG                    | 143          | 86                | 1.19 (0.76-1.87) | 0.440        | 0.699    | 1.24 (0.78-1.97)      | 0.370        | 0.685    |
| GG                    | 64           | 33                | 1.48 (0.83-2.63) | 0.180        | 0.481    | 1.51 (0.85-2.69)      | 0.160        | 0.434    |
| <b>PPP2R2B</b>        |              |                   |                  |              |          |                       |              |          |
| rs10477307            |              |                   |                  |              |          |                       |              |          |
| GG                    | 116          | 70                | Ref              |              |          | Ref                   |              |          |
| GA                    | 148          | 72                | 0.70 (0.45-1.09) | 0.120        | 0.700    | 0.67 (0.42-1.05)      | 0.081        | 0.283    |
| AA                    | 40           | 20                | 0.69 (0.35-1.36) | 0.290        | 0.613    | 0.71 (0.36-1.37)      | 0.310        | 0.629    |
| <b>KIF20A</b>         |              |                   |                  |              |          |                       |              |          |
| rs10038448            |              |                   |                  |              |          |                       |              |          |
| CC                    | 195          | 99                | Ref              |              |          | Ref                   |              |          |
| GC                    | 98           | 57                | 0.74 (0.37-1.47) | 0.390        | 0.672    | 0.80 (0.40-1.60)      | 0.520        | 0.792    |
| GG                    | 13           | 7                 | 0.55 (0.10-2.94) | 0.490        | 0.699    | 0.55 (0.11-2.67)      | 0.460        | 0.728    |
| <b>TGFB1/CCDC97</b>   |              |                   |                  |              |          |                       |              |          |
| rs12980942            |              |                   |                  |              |          |                       |              |          |
| GG                    | 259          | 145               | Ref              |              |          | Ref                   |              |          |
| GA                    | 42           | 15                | 0.52 (0.25-1.04) | 0.066        | 0.370    | 0.52 (0.26-1.05)      | 0.067        | 0.283    |
| AA                    | 4            | 3                 | 2.85(0.67-12.08) | 0.160        | 0.481    | 2.37 (0.57-9.90)      | 0.240        | 0.546    |
| <b>XRCC5</b>          |              |                   |                  |              |          |                       |              |          |
| rs1051685             |              |                   |                  |              |          |                       |              |          |
| AA                    | 163          | 90                | Ref              |              |          | Ref                   |              |          |
| AG                    | 112          | 58                | 0.55 (0.35-0.88) | <b>0.012</b> | 0.197    | 0.55 (0.35-0.88)      | <b>0.013</b> | 0.167    |
| GG                    | 31           | 15                | 0.84 (0.43-1.63) | 0.600        | 0.699    | 0.95 (0.49-1.82)      | 0.870        | 0.968    |

|                          |     |     |                   |              |       |                   |              |       |  |
|--------------------------|-----|-----|-------------------|--------------|-------|-------------------|--------------|-------|--|
| TNF rs3093662            |     |     |                   |              |       |                   |              |       |  |
| AA                       | 243 | 136 | Ref               |              |       | Ref               |              |       |  |
| AG                       | 58  | 26  | 1.19 (0.69-2.07)  | 0.530        | 0.699 | 0.96 (0.55-1.69)  | 0.890        | 0.968 |  |
| GG                       | 4   | 1   | 0.47 (0.06-3.65)  | 0.470        | 0.699 | 0.36 (0.05-2.80)  | 0.330        | 0.635 |  |
| BCL2 rs1531697           |     |     |                   |              |       |                   |              |       |  |
| TT                       | 159 | 76  | Ref               |              |       | Ref               |              |       |  |
| TA                       | 117 | 72  | 1.10 (0.72-1.67)  | 0.670        | 0.740 | 0.98 (0.64-1.51)  | 0.930        | 0.968 |  |
| AA                       | 28  | 14  | 0.50 (0.23-1.11)  | 0.087        | 0.370 | 0.37 (0.16-0.82)  | <b>0.014</b> | 0.167 |  |
| CHFR<br>rs11610954       |     |     |                   |              |       |                   |              |       |  |
| CC                       | 260 | 137 | Ref               |              |       | Ref               |              |       |  |
| CT                       | 40  | 23  | 1.86 (1.04-3.33)  | <b>0.037</b> | 0.370 | 1.77 (0.97-3.22)  | 0.062        | 0.283 |  |
| TT                       | 6   | 3   | 1.74 (0.50-6.02)  | 0.380        | 0.673 | 1.63 (0.47-5.57)  | 0.440        | 0.728 |  |
| CDC25C<br>rs6874130      |     |     |                   |              |       |                   |              |       |  |
| GG                       | 96  | 48  | Ref               |              |       | Ref               |              |       |  |
| GC                       | 162 | 88  | 0.96 (0.58-1.59)  | 0.870        | 0.925 | 0.93 (0.56-1.55)  | 0.790        | 0.968 |  |
| CC                       | 48  | 27  | 0.80 (0.37-1.74)  | 0.570        | 0.699 | 0.88 (0.41-1.88)  | 0.740        | 0.968 |  |
| ATM rs1800057            |     |     |                   |              |       |                   |              |       |  |
| CC                       | 300 | 155 | Ref               |              |       | Ref               |              |       |  |
| CG                       | 6   | 8   | 1.69 (0.50-5.72)  | 0.400        | 0.672 | 1.05 (0.30-3.62)  | 0.940        |       |  |
| CYP1A1 Msp1<br>rs4646903 |     |     |                   |              |       |                   |              |       |  |
| AA                       | 204 | 112 | Ref               |              |       | Ref               |              |       |  |
| AG                       | 78  | 40  | 0.63 (0.39-1.02)  | 0.059        | 0.370 | 0.61 (0.38-0.98)  | <b>0.040</b> | 0.234 |  |
| GG                       | 18  | 10  | 1.20 (0.51- 2.85) | 0.670        | 0.740 | 1.04 (0.43-2.51)  | 0.930        | 0.968 |  |
| TTC28<br>rs9608696       |     |     |                   |              |       |                   |              |       |  |
| TT                       | 329 | 156 | -                 | -            | -     | -                 | -            | -     |  |
| GG                       | 0   | 0   |                   |              |       |                   |              |       |  |
| CDC25C<br>rs3734166      |     |     |                   |              |       |                   |              |       |  |
| GG                       | 171 | 77  | Ref               |              |       | Ref               |              |       |  |
| GA                       | 115 | 76  | 1.72 (0.94-3.15)  | 0.077        | 0.369 | 1.61 (0.86-3.01)  | 0.140        | 0.434 |  |
| AA                       | 18  | 8   | 3.52(0.74-16.76)  | 0.110        | 0.400 | 3.89 (0.88-17.29) | 0.074        | 0.283 |  |
| GSTM1                    |     |     |                   |              |       |                   |              |       |  |
| + (Present)              | 249 | 129 | Ref               |              |       | Ref               |              |       |  |
| - (Null)                 | 50  | 30  | 2.12 (1.25-3.61)  | <b>0.005</b> | 0.183 | 1.86 (1.07-3.21)  | <b>0.027</b> | 0.234 |  |
| GSTT1                    |     |     |                   |              |       |                   |              |       |  |
| + (Present)              | 232 | 126 | Ref               |              |       | Ref               |              |       |  |
| - (Null)                 | 67  | 33  | 0.86 (0.52-1.43)  | 0.560        | 0.699 | 0.80 (0.48-1.34)  | 0.390        | 0.690 |  |

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\*Adjusted for gender #Corrected for multiple testing using the Benjamin-Hochberg method.

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